

Environmental Contamination – The Basics



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In an industrialized society like ours, a wide variety of contaminants are released to the environment every day from residential, commercial and industrial sources. Many of these releases, also referred to as discharges, may not pose a threat to the public and the environment. However, a significant release of a contaminant/hazardous substance has the potential to impact human health or the environment. When a significant release occurs, the Wisconsin Department of Natural Resources (DNR), particularly the Remediation and Redevelopment Program (RR Program), provides oversight and assistance in making sure the public and the environment are protected.

What is the RR Program?

The RR Program becomes involved when a release of a hazardous or potentially hazardous substance occurs to the lands, waters or air in the State of Wisconsin. When a release is reported, the RR Program evaluates the severity of the release and, if necessary, ensures that the proper cleanup procedures are followed to minimize any threat to human health or the environment.

The RR Program also provides technical and regulatory assistance to public and private parties looking for information, investigating and cleaning up properties with real or perceived contamination. In certain circumstances, the DNR is required to charge a fee for technical assistance. Attention is provided to abandoned or underutilized properties, known as brownfields, in an effort to return these properties back to productive use. This effort also promotes the revitalization of blighted areas, as well as the reuse/redevelopment of properties already located in urban areas in order to preserve undeveloped land (also referred to as greenfields).

A Hazardous Substance, as defined in s. 292.01, Wis. Stats., means any substance or combination of substances, including any waste of a solid, semisolid, liquid or gaseous form which may cause or significantly contribute to an increase in the mortality or an increase in serious irreversible or incapacitating reversible illness, or which may pose a substantial present or potential hazard to human health or the environment because of its quality, concentration or physical, chemical or infectious characteristics. This term includes, but is not limited to, substances that are toxic, corrosive, flammable, irritants, strong sensitizers or explosives as determined by the DNR.

Why should I be concerned?



Not only is it a legal requirement to take necessary steps to address contamination, but contamination can have an adverse impact on human health and the environment. It can take many forms and can occur anywhere. In Wisconsin, a primary concern for environmental impacts from contamination is the degradation of groundwater quality. Soil, vapor, air and surface water contamination are also areas of concern. When a release to the environment has been identified, the DNR is mandated by state law to require response actions that are protective of human health, safety and welfare, and to restore the environment to the extent practicable.

An individual or local government may assume liability for environmental cleanups by acquiring a contaminated property. The Wisconsin Supreme Court has determined that if you own a contaminated property where contaminants are continuing to migrate, then you may be



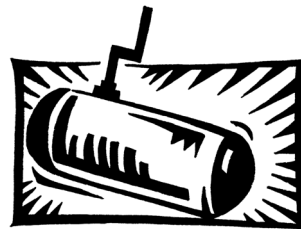
Wisconsin Department of Natural Resources
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responsible for cleaning it up, even if you did not cause the contamination because you are interpreted as having "possession and control" of the release.

Stressed vegetation, stained soils, odors, a sheen on the surface of water, or a strange taste to water are often obvious indicators of a potential release and/or environmental problem. In addition to these more obvious factors, historical property usage such as plating operations, dry cleaners or engine repairs could also be indicative of other not-so-obvious environmental problems. For example, a serious

environmental problem that is hard to detect is leakage from an underground storage tank (UST). Unless good records are kept regarding product usage, underground leaks are hard to identify.



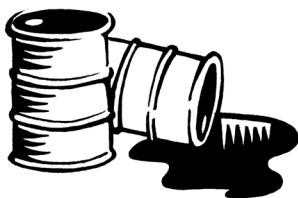
What is a discharge/release?

A discharge to the environment is defined in s. 292.01, Wis. Stats., and means, but is not limited to, spilling, leaking, pumping, pouring, emitting, emptying or dumping. RR staff commonly use the terms "discharge" and "release" interchangeably.

To obtain more information on what constitutes a hazardous substance and/or release, refer to the Regulations listed in the "Resources" section on page 4.

How is a release discovered?

Releases to the environment are discovered in several ways. The most common methods of discovery are: visual observation; while the release is taking place (i.e. a leaking gas pump); or historical releases discovered during building expansion/demolition, road construction activities, utility repairs or tank removal/upgrade activities.



Releases can also be discovered at the time of property transfer if a potential buyer requests a Phase I and/or Phase II Environmental Site Assessment (ESA). A Phase I ESA consists of a historical search and identifies current and past property usage and areas of potential environmental concern. A Phase II ESA consists of collecting soil and/or groundwater samples at the property from those areas identified in the Phase I ESA with suspected or known

contamination (i.e. areas of drum storage, stressed vegetation, stained soils, above and below ground storage tanks, etc.).

When do I need to report a release?

According to the "Spill Law", s. 292.11, Wis. Stats., persons who cause, possess or control the release of a hazardous substance that adversely impacts, or threatens to adversely impact public health, welfare or the environment must immediately report the release to the DNR. Generally, this responsibility falls upon the current property owner. **Emergency one time spills must be immediately reported by telephoning the DNR 24-hour toll free Spill Hotline at 1-800-943-0003.** Non-emergency releases discovered via a tank pull or site assessment can be reported by completing and submitting the Hazardous Substance Fax Notification Form (Form 4400-225) or visiting your DNR regional headquarters in person during normal business hours. (Please see page 3 for contact information.)

What happens next?

Once the DNR has been notified that contamination exists at a site, the DNR will inform the responsible party by telephone and/or mail if any further actions are needed. The range of actions is defined in the NR 700 rule series (referenced in the “Resources” section on page 4). The responsible party is then, in most cases, issued a responsible party letter that outlines legal responsibilities for addressing contamination. The letter will ask the responsible party to hire a qualified environmental consultant. The consultant will submit a work plan that details how he/she will investigate the degree and extent of the contamination (if necessary, across property boundaries) by collecting soil and/or groundwater samples.

What is a “Responsible Party?”

A responsible party is an individual or public or private entity who causes a discharge of a hazardous substance or who possesses or controls a hazardous substance which is discharged. The responsible party is legally required under Wisconsin’s Spill Law to notify the DNR of the discharge and to investigate and remediate the environment.

After determining the degree and extent of the contamination, the environmental consultant will prepare a site investigation report that summarizes the results of their findings. Typically, the consultant will also provide a cleanup strategy in this report. Cleanup measures are then undertaken by the consultant on behalf of the responsible party to restore the environment.

Once the site appears to meet all regulatory requirements, the consultant will prepare a closure request for DNR submittal. Once the appropriate fee has been submitted, the DNR reviews the closure request and determines whether or not the site has been cleaned up to acceptable levels. If closure is appropriate, the DNR or any other state agency with jurisdiction over the case will issue a closure letter indicating you have complied with the conditions of closure.

What is the role of an environmental consultant?

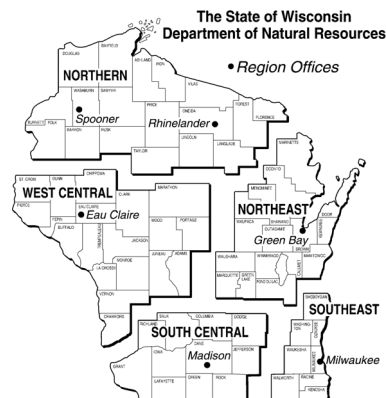
When the DNR informs you that you need to address contamination, you will be requested to hire the services of a professional environmental consultant. The role of the environmental consultant is to determine the most appropriate and cost effective way to investigate and remediate the contaminated site. The consultant should act as a representative for the responsible party on technical matters and should have a thorough understanding of regulatory requirements. It is important to feel comfortable with your environmental consultant, as they will be working closely with you and the DNR.

Where can I find additional information?

Appointments to view paper copies of DNR information can be made by contacting your DNR regional headquarters at the telephone numbers listed below during normal business hours. Please be aware that some of our services require a fee. Please see our web site at http://dnr.wi.gov/org/aw/rr/Services_Fees/index.htm for more information on fees.

Contacts

Northeast Region (NER, Green Bay): 920-492-5594
Northern Region (NOR, Rhinelander): 715-365-8986
South Central Region (SCR, Fitchburg): 608-275-3212
Southeast Region (SER, Milwaukee): 414-263-8688
West Central Region (WCR, Eau Claire): 715-839-2784



The RR web site has many features to assist you. For example, you can locate DNR staff contacts, access DNR publications, obtain environmental information on specific properties, or find information on financial incentives. The RR web site can be found at <http://dnr.wi.gov/org/aw/rr>



Resources

The following DNR resources can be found on the RR Program web site at: <http://dnr.wi.gov/org/aw/rr>

Lists of Contaminated Sites:

- *BRRTS on the Web*, the RR Program's list of open (still investigating) and closed (cleanup completed) contaminated sites in Wisconsin.
- GIS Registry (The RR Program's list of closed sites with residual soil & groundwater contamination.)

Publications:

- *Dry Cleaner Environmental Response Program: Is the Program for Me?* (Pub # RR-632)
- Environmental Services Contractors List (Pub # RR-024)
- Fax Notification (Form 4400-225)
- *Financial Resources Guide for Cleanup and Redevelopment* (Pub # RR-539)
- Publications Checklist (Pub # RR-582)
- *Selecting an Environmental Consultant* (Pub # RR-502)
- Site Assessments for Underground Storage Tanks Technical Guidance (Pub # SW-175)
- *Voluntary Party Remediation and Exemption from Liability* (Pub # RR-506)

Regulations:

- Hazardous Substance (Wisconsin State Statutes 292.01)
- Spills Law (Wisconsin State Statutes 292.11)
- Wisconsin Administrative Code Chapter NR 140
- Wisconsin Administrative Code Chapter NR 700 Rule Series
- Wisconsin Spill Reporting Requirements (Pub # RR-558)

If you have questions about tank regulations or PECFA reimbursement, please see Department of Commerce references at: <http://www.commerce.state.wi.us/COM/Com-Petroleum.html>

This document may contain some information about certain state statutes and rules but does not necessarily include all of the details found in the statutes/rules. Readers should consult the actual language of the statutes/rules to answer specific questions.

The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240.

This publication is available in alternative format upon request. Please call 608-267-3543 for more information.

